

03C0  
#4

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re the Application of:

ADAIR, et al.

Serial No.: 09/935,993

Filed: August 23, 2001

Atty. File No.: 7018-23-CIP10

For: "HAND-HELD COMPUTERS  
INCORPORATING REDUCED AREA)  
IMAGING DEVICES"

Assistant Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

Applicant submits this Response to Notice to File Corrected Application Papers to address the Notice to File Corrected Application Papers having a mailing date of September 11, 2001. Although the Applicant believes that no fees are due for filing this Response to Notice to File Corrected Application Papers, please charge any fees deemed necessary to Deposit Account No. 19-1970.

Please amend the above-identified patent application as follows:

IN THE ABSTRACT:

Please replace the paragraph beginning at page 62, line 2, with the following rewritten paragraph:

A reduced area-imaging device is provided for use with a miniature hand-held computer referred to in the industry as a PDA. Various configurations of the imaging device are provided



Group Art Unit:

Examiner:

RESPONSE TO NOTICE TO FILE  
CORRECTED APPLICATION PAPERS

<p>CERTIFICATE OF MAILING</p> <p>I HEREBY CERTIFY THAT THIS CORRESPONDENCE IS BEING DEPOSITED WITH THE UNITED STATES POSTAL SERVICE AS FIRST CLASS MAIL IN AN ENVELOPE ADDRESSED TO COMMISSIONER OF PATENTS AND TRADEMARKS, WASHINGTON, DC 20231 ON <u>11/6/01</u>.</p> <p>SHERIDAN ROSS P.C.</p> <p>BY: <i>Christine Jacques</i></p>
---

202210 86656550

Application No. 09/934,201

which position elements of the imaging device in desired locations. The PDA includes a miniature LCD-type video screen which can display not only images taken by the camera module, but also incoming video images. The camera module may communicate with the housing of the PDA either by a wired connection, or wirelessly. The camera module is small enough that it can be stored within the housing of the PDA. The camera module may be pointed at an object within sight of the user without having to move the PDA housing in order to take an image. Any acceptable wireless standard may be used for wireless communication between the camera module and the PDA. One particularly advantageous standard includes Bluetooth.

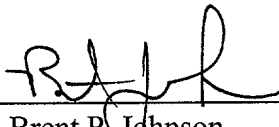
REMARKS/ARGUMENTS

Attached hereto is a marked up version of the changes made to the abstract by the current amendment. The attached page is captioned "Version With Markings to Show Changes Made."

It is respectfully requested that the amended abstract be entered and that the Notice to File Corrected Application Papers be withdrawn.

Respectfully submitted,

SHERIDAN ROSS P.C.

By:   
Brent P. Johnson  
Registration No. 38,031  
1560 Broadway, Suite 1200  
Denver, Colorado 80202-5141  
(303) 863-9700

Date: 11/6/01

**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**In the Abstract:**

Paragraph beginning at page 62, line 2 has been amended as follows:

**ABSTRACT**

A reduced area-imaging device is provided for use with a miniature hand-held computer referred to in the industry as a PDA. Various configurations of the imaging device are provided which position elements of the imaging device in desired locations. The PDA includes a miniature LCD-type video screen which can display not only images taken by the camera module, but also incoming video images. The camera module may communicate with the housing of the PDA either by a wired connection, or wirelessly. The camera module is small enough that it can be stored within the housing of the PDA. The camera module may be pointed at an object within sight of the user without having to move the PDA housing in order to take an image. Any acceptable wireless standard may be used for wireless communication between the camera module and the PDA. One particularly advantageous standard includes Bluetooth. [In one configuration of the imaging device, the image sensor is placed remote from the remaining image processing circuitry. In a second configuration, all of the image processing circuitry to include the image sensor is placed in a stacked fashion near the same location. In the first configuration, the entire imaging device can be placed at the distal end of a camera module. In a second configuration, the image sensor is remote from the remaining image processing circuitry wherein available space within the PDA is used to house the remaining circuitry. In any of the configurations, the image sensor may be placed alone on a first circuit board, or timing and control circuits may be included on the first circuit board containing the image sensor. One or more video processing boards can be stacked in a longitudinal fashion with respect to the first board, or the video processing boards may be placed within the housing of the communication device. The PDA includes a miniature LCD-type video view screen which is capable of viewing not only the images taken by the camera module, but also can show incoming video images received from a personal computer connected to a global communications network. The camera

#4

*Application No. 09/934,201*

module is of such small size that it can be easily stored within the housing of the PDA. In a first embodiment, the camera module communicates with the housing of the PDA by a wired connection utilizing a small retractable cable. In a second embodiment, the camera module communicates wirelessly with the PDA. In either embodiment, the camera module may be pointed at any desired object within sight of the user, and without having to actually point or move the phone housing in order to take an image. In the wireless embodiment, a user has total freedom to manipulate the positioning of the camera module without adjusting the position of the video telephone since there is not even a cable to contend with. Any acceptable wireless standard may be used for communication between the camera module and the video telephone. One particularly advantageous standard includes bluetooth.]

09/934,201